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WHERE ARCHAEOLOGY COMES IN

AN OPEN SESAME

BY ARTHUR L. FROTHINGHAM

I

A FEW years ago in Philadelphia Mr. Henry C. Lea asked a friend, "What is Archæology?" This question from one of the foremost of American humanistic scholars, whom, in fact, a prominent French savant characterized to the present writer as "the greatest of living historians," implies that even in the mind of men of unusual breadth of culture there lingers in this respect a certain haziness.

This is hardly to be wondered at when even among specialists in America there seems to be discord: when many anthropologists are satisfied that archæology is a perquisite of the prehistoric ages, while authorities in the Greco-Latin field are apt to regard classical antiquities as the only proper theme of archæology.

The answer given to Mr. Lea's question was that "Archæology is the History of Civilization told through its Monuments." Even this definition narrows the field possibly more than is strictly advisable, for Archæology, or, in English parlance, the Science of Antiquities, is the broadest, most human and progressive of sciences. Its scope includes man and his history, the material things he has produced, the causes that produced them, the stories they tell, and the feelings they evoke. New discoveries are constantly adding to its material, opening up fresh fields, and forcing revisions of opinion. Such studies as religion and mythology, history, politics and economics, arts and industries, manners and customs, now depend largely on archæology for progress not only in material but in method. Archæology is twin sister to Literature: the one dealing with thought transmuted into things, the other with thought translated into words. Of the

two, Archæology is the more direct and reliable historic source, because it is the natural, impersonal, collective expression of an entire people, whereas Literature compacted of the voices of single men, is humanity seen through temperaments, and, therefore, is limited and prejudiced: in this consists its danger as well as its value and fascination. A figured monument gives us nothing but the truth: it is non-partisan. Written words harbor many untruths, whether intentional or involuntary. A real archæologist must, then, be the most broad, sensitive, keen, and profound of scholars; a historian, religious philosopher, philologist, critic, and art-lover all in one. Such archæologists are born, not made, yet they can be perfected only by infinite pains, and, like the great scientists, they are creators.

Two things must be considered in a survey of this field: materials and methods.

The excavations that have given us the skulls of the earliest men, the rock-pictures some fifteen or twenty thousand years old, and the earliest fashioned implements and potteries are archæology's contribution to anthropology and pre-history. For the age when historic civilizations began, at the close of the Neolithic Age, after 5000 or 4000 B.C., it is only necessary, in order to realize the revolution brought about by archæology, to pick out any ancient history written more than seventy years ago, such as Rollin's, and compare it with one written during the last two or three decades.

Since 1840 or 1850 archæology has practically created for us four thousand years of history: a new heaven as well as a new earth for the pre-Hellenic world. Egypt, Babylonia, Assyria, the Hittites have emerged from an almost Cimmerian darkness. We can now decipher their writings, read their literature, reconstruct their annals, religion, and life, while looking into the faces of the men and women of their race. The Northern races that entered so much later into the arena and yet were even more intangible than these Eastern nations are being unveiled by archæology: Goths, Scandinavians, Celts, Gauls, Slavs, and Germans, from the mountains of Armenia and the Caucasus to Brittany, are being shown by their archæological remains as either half yielding to the influence of Greece and Rome or maintaining their primitive integrity. Our science is helped at times by literature, but often it is obliged to seek unaided for an answer in these fields of the primitive and undeveloped

ances. This illustrates how much broader as well as more faithful it is than literature.

Babylonia and Assyria may be used as an instance of the way in which results have been obtained. Their literature, written in curious wedge-shaped characters, elaborately combined, which are called cuneiform, was preserved mainly on clay tablets or cylinders, where they were inscribed with a sharp instrument before the clay was baked. These are supplemented by occasional monumental historic or religious inscriptions cut in stone. All of this literature was hidden underground. None of it had ever been read; the few pieces that had been seen were not supposed ordinarily to be writing at all, but mere decorative designs. The earliest important step was taken when Sir Henry Rawlinson copied and published the colossal trilingual inscription of King Darius on the rock of Behistun (1847-51), in Persian, Median, and Assyrian. This led, between 1850 and 1860, to the gradual mastering of the script and language of the three peoples and to that of the Babylonians as well. The excavations begun in 1842 at the palace of the Assyrian King Sargon, at Khorsabad, by Botta, and those at Nineveh, and Kalah by Layard, a few years after, furnished new inscriptions, but especially archæological material. Each Assyrian king was found to have built a new palace, whose ruins were uncovered. Line upon line of sculptured reliefs were found against the walls, gigantic animals guarding the portals, long inscriptions with the royal annals.

In the throes of artistic and archæological interest these first excavators lost sight of the value of the inscribed records. George Smith, years later, returned to the site of Layard's labors to unearth once more the royal library of Assurbanipal, whose thousands of tablets are now in the British Museum. It was formed shortly after 700 B.C., by the king's savants, largely from ancient sources. Assyriologists found in this carefully classified and varied library materials for reconstructing the dynasties of Babylonian and Assyrian kings, the religious systems and myths, the social, economic, juridic, and literary conditions, the methods of instruction, and the smallest matters of daily business. Even the vocabularies and exercise-books for beginners were recovered.

It soon became evident that the source for everything Assyrian was to be sought in Babylonia, from whose li-

braries so many of the Assyrian documents had been copied. For two or three thousand years before Assyria became a nation Babylonia had possessed an advanced civilization. For the past twenty years, therefore, excavations have been concentrated on the ruins of Babylonian cities, such as Babylon itself, Nippur, and Telloh, hidden under formless mounds of sand. Cognate civilizations have been studied at the same time, especially that of Elam and Persia at Susa, and that of the Hittites at their source in Cappadocia (Boghaz-Keui), not to mention work in Phœnicia and Palestine. In these later excavations archæologists have shown a gradual improvement in methods of research, so that they now remove the débris of an ancient city in successive layers, corresponding to different periods in its history, labeling and keeping together whatever is found on the same level, after making photographs and drawings, so that the tale of each period is clearly told. Among the earliest instances of this method are the excavations of Troy by Schliemann and Dörpfeld, but it is to the example of Flinders-Petrie in Egypt that we owe the greatest debt.

Archæology, therefore, furnished practically all the material for the reconstruction by modern scholars of the civilizations of Babylonia, Assyria, and the Hittites. One may say the same of ancient Egypt ever since the days of the Archæological Commission of Napoleon and the decipherment of the Rosetta stone. There is, however, the difference that in this case the artistic more decisively dominate the literary records in the new discoveries, and that one really enters into the spirit and life of ancient Egypt not by reading translations of Egyptian documents, but by studying the reliefs and paintings of the tombs, the pyramids, and the temples of Karnac, Luxor, Edfu, Philæ, and Ipsambul, and the myriad works of minor art and industry in which Egypt led the world.

At the present moment archæology is busy forging the missing links that connected these ancient civilizations of Babylonia and Egypt with the Greeks of the Mycenæan and Homeric ages and the early Italians. It is finding them in the "hundred cities" of ancient Crete, where royal palaces are being excavated as elaborate as those of the kings of Babylonia and Assyria. Here also the English archæologists were the pioneers, and Evans has been followed by Italians and Americans. Here seems to have been, in the

fabled age of King Minos after the Neolithic Age, the origin of an Ægean civilization older than 2500 B.C., which spread along the shores of the Mediterranean. Several new scripts and one or more languages were in use, which it will require years to decipher. In this way we obtain the right perspective for Schliemann's spectacular discoveries at Mycenæ, Tiryns, and Troy, which take their place in a long and complicated era of early culture, parallel with those of Egypt, Babylonia, and the Hittites.

After this, in the main currents of historic development, archæology must share with literature the credit of picturing the past. Yet we hardly realize, perhaps, how little Greece would be the Greece we visualize if we were to depend entirely on her literature, eliminating her architecture and her sculpture, the embodiments of her sense of beauty, and the minor arts which give the picture of Greek dress, jewelry, arms, and furniture, with all those concrete details of the daily life, the games and wars, the religious ceremonies, and the thousand and one things that literature leaves untold while telling us so much. Even Greek literature itself owes most of its recent slender additions to the work of the archæologists who have unearthed the papyri preserved in the sands of the Fayûm.

History repeats itself in the case of ancient Italy. For the pre-Roman age there is almost nothing but archæology to teach us what happened during a period of at least five or six centuries, when Siceliots, Umbrians, Etruscans, Celts, and other peoples succeeded one another in the peninsula. The story is still inchoate, but we can see interesting proofs of contact and commercial relations with Phœnicia and Greece and of the origins and early interaction of Rome and her neighbors. When we reach the later periods of Roman history, archæology takes an even larger place than in Greece as an expositor of civilization, because of the greater variety of monuments of art that remain. There is a great change from those days of the eighteenth century and before when the monuments served but to illustrate literature. Of course there are still many cases in which archæology contributes out of its abundance to the philologist or the historian. The Testament of Augustus, in which he summarizes his entire career, is an archæological discovery inscribed on a wall at Ancyra; it is the most important historical document of the

empire. The speech of the Emperor Claudius at Lyons in which he outlined the policy of giving Roman citizenship to non-Italians—so fundamental to Roman greatness—was found on a bronze tablet. These are examples of archæology's numerous contributions to Latin literature. So is the formula of the oath of allegiance to the divine Augustus found in Asia Minor, which would alone explain why the attitude of the Christians in placing obedience to God above that to the Emperor made the persecutions perfectly logical.

Here it may be as well to explain the relation of art to archæology, about which there is much popular confusion.

All works of architecture, sculpture, and painting, of the industrial arts and numismatics, everything from a tombstone to an ivory carving or an illuminated manuscript, belongs to the domain of archæology. It is impossible to say where art ends and archæology begins, because art is merely one section of the subject. The same work must be considered both archæologically and esthetically. A Greek vase, with its lesson in mythology or daily life, is both a work of art and a bit of archæological material; the ruins of a Roman villa or of the imperial thermæ are not only wonderful pieces of architectural composition and structure, but are quite as illuminating for the daily life of the Romans as the letters of Cicero or the plays of Martial. It is no longer permissible to treat the monuments merely as illustrations of literature: they are an independent study.

The process by which a work of art is characterized and given its proper place, whether it is temple, cathedral, statue, or painted vase, is made up of elements both esthetic and archæological. For instance, the use of literary texts, of historical documents, of deductions from site, structure, circumstances of find, are all in the archæological domain. Also when generalizations as to the character of the artistic development of any period or style are made, as in the case of Greek sculpture or Gothic architecture, nearly all the elements for the construction of a theory of artistic evolution are archæological. By their means the monuments are marshaled in ordered array, each made to take its place and yield its secret. In other words, without archæology as a basis and coefficient, esthetics would not exist except in the form of subjective effusions of doubtful value.

It is, then, archæology which creates the History of Art.

Of course it is, conversely, true that complete appreciation either of a single work of art or of any group cannot be secured without the element of esthetic understanding which every true archæologist should possess. There is, however, a curious popular custom which inclines to call "archæological" what seems not to be beautiful. For example, we speak of Early Christian *archæology* when we refer to the works of art created during the first centuries of the Church, because art was then more instructive than esthetic. But we are apt to refer to medieval *art*, having in mind the beauties of Gothic cathedrals. We never use "archæology" with reference to the works of the Renaissance, which was so devoted to the cult of beauty for its own sake that we classify all of its products under the title of "art." And yet both terms are used of Greek products. A handbook of Greek Archæology includes the whole of what one finds in a History of Greek Art, with the addition of a few chapters, perhaps, on works of industrial art. Yet, as between the Greek and the Renaissance periods, there can be no doubt that greater esthetic sense was shown in Greek works, so that one is forced to conclude that the term "archæological" is used of them merely on account of their greater antiquity!

II

Thus far archæology has been treated as furnishing the materials for exact knowledge of the past through the spade and through close study and observation. But it has done far more than this. It has developed gradually, during the course of a century and a half, certain valuable scientific methods by which to utilize this material and draw from it the most valuable conclusions. With these new methods, of which it borrowed the principles from the exact sciences, it has inoculated the fields of history and philology, helping to rid them of much loose and hypothetical thinking. In fact, it has given a scientific and observational basis to a large part of the field of the Humanities. Its careful application of the inductive and deductive methods in gathering and analyzing masses of material and in using them to formulate results and to state historic laws has made its work often safer than is the case even in some fields of pure science, because its data are more abundant and complete.

This has not only given their full value to what has been discovered, but it has revolutionized the views held of monu-

ments always seen and known, but never, as we now know, clearly understood. Gothic architecture may be used to point this moral. The old opinion was that it was a free and fantastic product, not subject to any laws, and was to be recognized wherever one saw pointed arcades, doors, and windows. Now we know that the exact opposite is true, and that of all forms of architecture the Gothic was the most logical, the most subject to law; we also know that there are plenty of buildings with pointed arches that are not Gothic, and plenty of buildings without them that are. Formerly we had no artistic criteria by which to date a Gothic building; now we can date almost any such building on internal evidence within twenty or thirty years. Formerly nobody knew where Gothic originated nor how its first steps were taken nor why its peculiar forms were adopted. Now we know exactly in what province of France it originated, what structural principles demanded the system of balanced thrusts which it adopted, and we can follow, decade by decade, the logical evolution of forms as they were worked out to correspond most efficiently to these principles. We can then follow the spread of Gothic throughout France and Europe.

All this is the result of the application of scientific methods of observation to the study of architecture instead of the earlier esthetic vapidities. This does not result in belittling the artistic value of Gothic buildings. Quite the contrary. We can see how the architect experimented with his materials in order to reduce their bulk and attain to the greatest delicacy of form and lightness of proportion; how the early heaviness was gradually discarded under the impulse of this idea until the limit of safety was passed in the wonderful choir of Beauvais Cathedral! By being admitted behind the scenes and being allowed to understand the artists' difficulties and methods, we obtain not only a clearer idea of how a cathedral came to be, but we appreciate more fully its beauty.

What is true of Gothic architecture is true of every branch of art and industry. The real significance of all the material things produced by man, their relation to thought and life and their correlation to one another, is so recent and so blinding that it is hardly as yet understood that any attempt to study the world's past without their help is bound to be futile, misleading, or superficial.

It is, therefore, customary to consider archæology as a very modern study, and to speak of Winckelmann as its founder after the middle of the eighteenth century. While this is true in a large and critical sense, it is interesting to note that there has been at all times a certain amount of unconscious archæology, and that the work of a student traveler like Pausanias, under the Antonine emperors, is even conscious archæology. As for unconscious archæology, it was particularly influential among races dominated by religious beliefs, myths, and traditions of all kinds. Among them archæology was a living study of great importance, a matter of life and not of curiosity.

When the late Babylonian King Nabonidus, about 550 B.C., stated that he was restoring in the original style a temple built more than two thousand years before him by King Naramsin, he was, or thought he was, doing the work of an archæological scholar. When the Roman priests, under the Antonine emperors, continued to use in their sacrifices only the primitive black earthen cups that had been in use for nearly a thousand years, since before the founding of Rome, they were practical archæologists. When the Emperor Augustus insisted on having copies of the best works of Greek sculpture of different ages and styles made in the exact manner of the originals, including archaic works, he was obliging his sculptors to be archæologists. The Emperor Claudius, who wrote on antiquities and used archaisms, was lampooned by scurrilous Romans as a pedantic archæologist; and Hadrian, the Philhellene, among his many efforts at resurrecting ancient Hellas, can count the revival of the Pergamene and Alexandrian styles of sculpture. Evidently, also, the Roman collectors of works of Greek art were even better archæologists than the corresponding collectors of the Renaissance, because they understood the significance of the works far better. It would not be difficult to find examples in post-classical times: among medieval miniaturists who reproduced illuminations several centuries old; among Renaissance artists like Michelangelo and Raphael, who were so successful in reincarnating antique forms.

It is a curious fact that the one man who can be pointed to as preceding Winckelmann to a certain extent as a real scientific archæologist is not in the field of classical studies, but in that of Christian archæology. He is Bosio, a Roman

priest of the seventeenth century (1629), who originated the scientific methods by which the Roman catacombs were made the basis for our study of early Christian life.

Winckelmann's revolutionary idea was the formulation of a philosophy of the history of art and of the theory that works of art and archæology should be studied for their own sakes, instead of as illustrations of ancient literature, and as parts of a well-ordered whole instead of as unrelated objects of curiosity. It appears to be forgotten that what he did for a History of Ancient Art the Frenchman Seroux d'Agincourt attempted immediately after to do for the entire post-classic age. It seems also to be forgotten by many that, while Winckelmann's methods were published between 1760 and 1767, they did not bear full fruit until after the founding at Rome in 1828 of the International Archæological Institute, with its splendid series of publications and its co-ordination of effort. Ottfried Müller gave, in 1830, the synthesis of the new movement in his *Manual of the Archæology of Art*. In the great era of excavation which had been opened by the discovery of Herculaneum in 1719 and continued at Pompeii after 1748, the increased knowledge of Roman art was paralleled by additional revelations regarding Greek sculpture through the bringing to western Europe of the archaic sculptures of Ægina and those of Phigaleia and the Parthenon. Very soon the opening of numerous tombs in Italy disclosed the wonderful minor arts of Hellas and Etruria, especially in jewelry and painted vases.

While these early excavations previous to 1850 were in the nature of looting forays, they afforded to archæologists for the first time a fairly well-rounded survey of the various branches of the art and industry of Greece and of the peoples connected with her. The scholars of the Roman Institute took instant advantage of this, and to their inspiration was largely due the immediate emulation in discovery of France, Germany, and England. Previous centuries had been content to travel and study what was above ground. The new school realized that what was visible was but a small fraction of what could be unearthed. At the same time there was no surcease in exploration. The new science gave different eyes for understanding the things above ground. There were also important regions of Asia Minor, Syria, and Roman Africa which had never been archæologi-

cally explored. Even now this work has not been completed. The founding of the German and French archæological schools at Athens gave a great impetus to excavation, especially after the spectacular success of Dr. Schliemann at Troy and Mycenæ, and that of the Germans at Olympia. In quick succession came Eleusis, Epidaurus, Delos, and Delphi. In the hands of Austrian, English, and German excavators the Greek cities of Asia Minor gave unexpectedly fruitful finds at Pergamon, Halicarnassus, Miletus, Ephesus, Priene, and Magnesia. At Priene an entire city of the Alexandrian age was laid bare. In several of these Asia Minor cities, and in others whose ruins are above ground, we can also study the amalgamation of Greek and Roman civilization. Then a revelation of the purely Roman work of extending civilization came in the exploration of the abandoned cities of Central Syria and in the study and excavation of those in North Africa through the occupation by the French of Algeria and Tunisia. At the same time the period immediately following, the age of the incubation of Christianity, was revealed in the exploration of the Roman catacombs by De Rossi and his masterly unveiling of their secrets.

The sharpening of the critical and intuitive faculties upon this mass of new material affected, as we saw in the case of Gothic architecture, the attitude of scholars toward the rest of the field, especially those of the Medieval and Renaissance periods, where there was little to uncover, but where application of the new historico-scientific methods effected quite as radical a revolution in the ability to understand and correlate the monuments. Between about 1850 and 1860 it may be said that the New Idea had penetrated every field and was being embodied in the literature of the subject, and especially well in such general histories of the monuments as Kugler and Schnaase. In each country a solid basis was being given to the history and science of the national antiquities by the organization of associations, by congresses, and by the new chairs for teaching the subject at the universities and even the schools. In this process the science and its irresistible trend is everything; the individual is of small account. Yet certain archæologists of the last fifty years emerge as among the greatest scholars that the world has seen, directing the current and setting a permanent seal upon men and things. Such men were

Mommsen, who practically created the science of Roman antiquities and history; De Rossi, who gave us a complete science of Early Christian archæology; Evans, who has brought into being both the material and the science of Early Ægean civilization. Hundreds are following the paths they have blazed.

In European universities the teaching of archæology as an independent department has long been recognized and is also carried on sometimes, as in the École du Louvre, in connection with large museums. Special courses in Egyptian, Babylonian and Assyrian, Greek in many branches, Roman, Christian, Medieval, and Renaissance monuments in many branches, have been well established for thirty or forty years throughout Europe. Only American institutions have remained indifferent and retrograde. In the rank and file of workers the Germans show the greatest pertinacity in elaborating special themes; the French are paramount in clear-eyed and facile exposition without loss of scholarship.

There is increasing danger, however, in the craze for specialization which has been invading all professions and pursuits, and a study of French methods and temperament is the best antidote. It cannot be too strongly felt that there will always be discoveries and visions from analogy and comparison hidden from the *specializing* archæologist who cannot draw suggestions from the enormous field outside of his specialty; just as there will be truths denied to the insight of the *generic* archæologist, because life is too short for him to delve into the minutiae of certain fields in which he is interested owing to the very breadth of his studies. It is a question of relative values. Certainly it is the archæologist of considerable breadth whose work will be of most real and lasting value, though the practical man who merely directs excavations and the man who carefully describes and labels a particular monument or a special class are both indispensable. There are exceptional men, like Flinders-Petrie and Evans, who can do all of these things.

While there is but little excuse for the lack of instruction in this field in America, there is an evident explanation—or rather there are several explanations. In the first place, patriotism has played a big rôle in the archæological awakening of Europe: the stimulus was given in large part by the wish to elucidate national monuments. With us there is no

material of the sort; our interest must be purely academic. Then it will be granted that if the basis of an understanding of the subject must be contact with the monuments, we are and must always be at a serious disadvantage. While the rapid increase in our public and private collections promises a tolerable opportunity for a future familiarity with *movable* works, we not only cannot hope to overtake European collections, but our distance from the whole field of the immovable monuments sets up a barrier that only temporary expatriation can occasionally overcome.

Aside from our special conditions, it is clear that in all archæological instruction there must be the closest interrelation with the work of certain other departments. A prerequisite to admission to courses in archæology and the history of art must be acquaintance with the history and, wherever possible, with the literature of the period. For advanced courses a knowledge of religion and mythology, laws and institutions, manners and customs is necessary. It is well understood in Europe that this study is advisable in the years corresponding to our undergraduate period, because it is the only study in the humanistic field which not only trains the esthetic sense, but all the powers of observation.

For the immediate establishment of post-graduate courses there is the special practical incentive of our absolute lack of trained specialists to take charge of the museums that have been and will be founded in our larger cities and even in such small cities as Worcester. Such specialists can be produced only by means of the same university training which is freely offered in Europe. Unless this is done, our museums will suffer and be forever crippled. One strong university department of this character might effect a revolution. But it must be established where a large museum can constantly be referred to, and it must also be provided with enough traveling fellowships to allow each student of promise, who intends to take a degree in archæology in order to qualify as teacher or curator, to study the monuments themselves for one if not for two years. From such a center there would spread the New Idea that archæology is not a means, but an end; not an esthetic excrescence or a by-product of the body educational, but a science both independent and fundamentally interrelated with other humanistic studies and worthy of an important niche in the educational Hall of Fame.

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